

# EUROPEAN PATENT OFFICE

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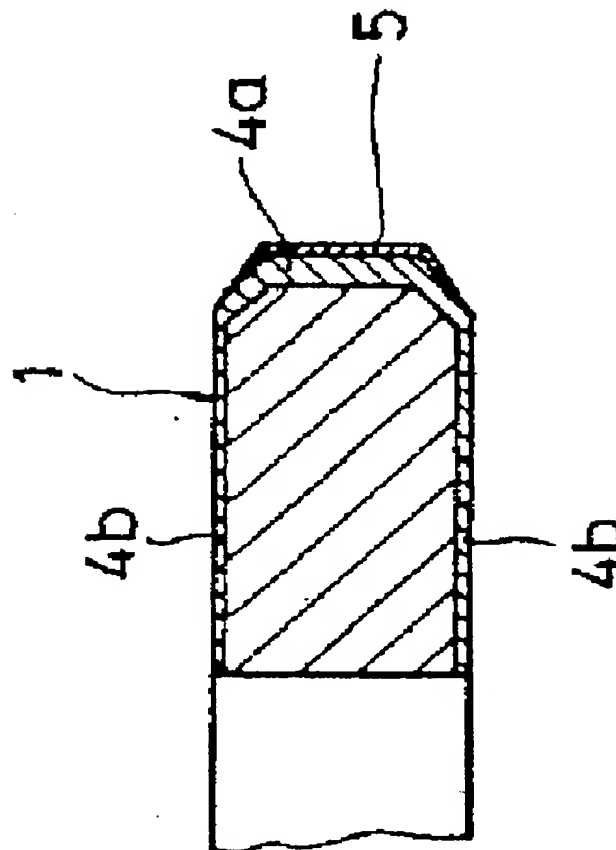
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APPLICANT : TEIKOKU PISTON RING CO LTD;

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TITLE : PISTON RING



**ABSTRACT :** **PURPOSE:** To improve heat resistance and initial conformability of a piston ring by applying heat resistance hard Cr plating including specific weight % of the total of S, C, and N to the outer circumferential sliding surface of the piston ring and additionally applying non-heat resistance hard Cr plating onto the heat resistance hard Cr plating of the outer circumferential sliding surface.

**CONSTITUTION:** On at least the outer circumferential sliding surface of a piston ring 1, heat resistance hard Cr plating including 1.0 to 3.0weight% of the total of S, C, and N 4a and 4b are applied. In addition, non-heat resistance hard Cr plating 5 is applied onto the heat resistance hard Cr plating on the outer circumferential sliding surface. This non-heat resistance hard Cr plating 5 must be of hard Cr applied in a Sargent bath or fluoride bath. In such way a piston ring excellent in initial conformability in the high temperature atmosphere, abrasion resistance, and seizure resistance can be obtained.

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